

ABSTRACT OF THE DISCLOSURE

There is provided a photoelectric converter comprising a photoelectric conversion element of a laminated structure comprising a first electrode layer, an insulation layer for blocking the passage of a first carrier and a second carrier, a photoelectric conversion semiconductor layer, an injection blocking layer for blocking the injection of the first carrier to the photoelectric conversion semiconductor layer, and a second electrode layer, wherein a switching means is provided for operating the converter by switching the following three operation modes a) through c) for applying an electric field to each layer of the photoelectric conversion element; a) an idling mode for emitting the second carrier from the photoelectric conversion element, b) a refreshment mode for refreshing the first carrier accumulated in the photoelectric conversion element, and c) a photoelectric conversion mode for generating pairs of the first carrier and the second carrier in accordance with an amount of incident light to accumulate the first carrier. The photoelectric converter has a sufficiently high SN ratio and can be produced at low cost.